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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/872,993

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Henry C. Yuen

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06/07/2004

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EXAMINER

CHANG, JON CARLTON

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,993

Applicant(s)

YUEN, HENRY C.

Examiner

Jon Chang

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: ____. |

Response to Applicant's Amendment

1. The amendment filed December 7, 2001, has been entered and made of record. Claims 2-6 have been added. Claims 1-6 are pending.

Drawings

2. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

Specification

3. The disclosure is objected to because of the following informalities: On page 5, at line 12, "Fro" should be changed to "For".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, at line 7, recites, "...the user **may** discontinue entry of further letters if..." (emphasis added). This language renders the claim indefinite because the resulting claim does not set forth the metes and bounds of the patent protection desired. Specifically, it would be difficult for a potential infringer to determine if he is infringing

when he is discontinuing entry and not discontinuing entry because the claim does not require either. Claims 2-6 depend from claim 1.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,002,390 to Masui.

As to claim 1, Masui discloses a method of improving the accuracy and speed of a handwriting recognition system (Most of Masui's disclosure relates to an embodiment which utilizes a "virtual keyboard." However, Masui states that the invention is applicable to a pen-input computer for handwritten input, column 19, lines 50-59) , comprising the steps of:

a) handwriting one or more letters of a desired word by a user (column 6, lines 12-17; column 19, lines 55-56)

b) implementing a "look-ahead" mode of operation, wherein most probable word or words corresponding to the entered letters are identified in a dictionary (column 5,

lines 41-50; column 6, lines 22-47; column 11, lines 23-28; "predicted" implies "look ahead"); and

c) presenting the most probable word or words to the user in such a way that the user may discontinue the entry of further letters if one the words identified in the dictionary matches the desired word (column 5, lines 64-65; column 6, lines 1-6; column 6, lines 47-51; the user can then select the desired word, column 5, lines 66-67).

Claim 2, Masui discloses the method of claim 1, wherein the identification of the most probable word includes the step of using character recognition to initially narrow down the alternatives of the word (note Masui includes recognition of the character in the case of handwritten input, column 19, lines 55-56).

Claim 5, Masui discloses the method of claim 1, wherein the most probable word is presented to the user single or in combination with other most probable words (column 6, lines 49-51).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Masui and U.S. Patent 6219,449 to Nagaishi.

Regarding claim 3, Masui does not disclose that the identification of the most probable word includes the step of using the length of the word or the relative placement of the characters together to further narrow the alternatives. However, in an analogous environment, Nagaishi teaches utilizing the relative placement of characters together (e.g., column 5, lines 45-62). Nagaishi's invention provides the advantages of reducing time for examination (column 2, lines 11-12), and a proper word can be found with high possibility (column 6, lines 49-50). Therefore, it would have been obvious to one of ordinary skill in the art to modify Masui's invention according to Nagaishi.

Regarding claim 4, Masui does not disclose the further step of using the grammatical relationship of the word or words to further narrow the alternatives. However, in an analogous environment, Nagaishi teaches using grammatical relationship of words (column 5, lines 51-62). Nagaishi's invention provides the advantages of reducing time for examination (column 2, lines 11-12), and a proper word can be found with high possibility (column 6, lines 49-50). Therefore, it would have been obvious to one of ordinary skill in the art to modify Masui's invention according to Nagaishi.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Masui and published European Patent Application 0 564 8277 A2 to Beigi et al. (hereinafter "Beigi").

Regarding claim 3, Masui does not disclose that the identification of the most probable word includes the step of using the length of the word or the relative

placement of the characters together to further narrow the alternatives. However, in an analogous environment, Beigi teaches using the length of a word (column 6, line 22). Beigi's system provides the advantage of correcting recognition errors (column 1, lines 5-6), thereby improving recognition results. Therefore, it would have been obvious to one of ordinary skill in the to modify Masui's invention according to Beigi.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Masui and U.s. Patent 6,111,985 to Hullender et al. (hereinafter "Hullender").

As to claim 6, Masui does not disclose the system utilizes predetermined rules for improving recognition capability. However, this is well known in the art as evidenced by Hullender (e.g., the rules of the state machine, column 6, lines 48-49). Hullender teaching provides the an improved method for recognition and has low memory requirements (column 14, lines 50-54). Therefore, it would have been obvious to one of ordinary skill in the art to modify Masui's invention according to Hullender.

References Cited

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,367,453 to Capps et al. discloses a method and apparatus for correcting words. The invention provides a list of candidate words for selection by a user.

U.S. Patent 5,787,197 to Beigi et al. teaches post-processing error correction for online handwriting recognition which takes into account word length and character matches, among other things.

U.S. Patent 6,005,973 to Seybold et al. teaches a combined dictionary based and likely character string method of handwriting recognition which presents a list of candidate recognized words to a user for selection.

U.S. Patent 6,377,965 to Hachamovitch et al. teaches an automatic word completion system for partially entered data. The patent is not pertinent to handwritten input or handwriting recognition.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
June 1, 2004